

Massey Ferguson®

1455V

Compact Tractor

WORKSHOP SERVICE MANUAL 4283076M1

CONTENTS

GENERAL INFORMATION	01
MAJOR COMPONENTS	02
COOLING, AIR CLEANER, AND FUEL SYSTEMS.....	03
ENGINE	04
CLUTCH	05
TRANSMISSION.....	06
FRONT AXLE	07
REAR AXLE	08
POWER STEERING SYSTEM	09
HYDRAULICS	10
ELECTRICAL	11

Massey Ferguson®

ST55 Compact Tractor

WORKSHOP SERVICE MANUAL 4283076M1

01 - General Information

Contents

INTRODUCTION	
Introduction	01-1
Indexing	01-1
Special Tools	01-1
Repair and Replacements	01-1
Repair Time Schedule	01-1
Amendments	01-2
SAFETY PRECAUTIONS	
Safety Precautions	01-3
TRACTOR IDENTIFICATION	
Tractor Identification	01-5
Model / Serial Numbers	01-5
TORQUE CHARTS	
Special Torques	01-9
Standard Torque Chart	01-10
SPECIFICATIONS AND CAPACITIES	
Capacities	01-13
Engine Oil	01-13
Engine Coolant	01-13
Fuel Tank	01-13
Transmission & Differential Housing (Including Hydraulic System)	01-13
Front Axle (4 WD)	01-13
Grease Fittings	01-13
Specifications	01-14
Engine	01-14
Transmission:	01-14
Power Take-Off (PTO)	01-14
Hydraulics:	01-15
Electrical System:	01-15
Capacities:	01-15
Tread Width Settings:	01-16
Maximum Axle Loading	01-16
Wheels and Tires	01-16
Tire Inflation Pressures	01-16
Wheel Bolt Torque	01-17
Front Wheel Alignment	01-18
Wheel Spacing	01-18
Agricultural-Type Rear Wheels	01-19
Transmission Speeds	01-20

Contents

INDEX 01-21

INTRODUCTION

INTRODUCTION

This service manual has been prepared with the latest service information available at the time of publication. Read the service manual carefully before doing any service on the compact tractor. This manual is one of the most important tools available to the service technician.

Right-hand and left-hand, as used in this manual, is determined by facing the direction the machine will travel when in use.

The photos, illustrations, and data used in this manual were current at the time of printing, but due to possible production changes, your machine can vary slightly. The Manufacturer reserves the right to redesign and change the machine as necessary without notification.



WARNING: Some pictures in this manual show the machine with shields or guards removed to allow for a better view of the subject of the picture. All shields and guards must be in position before operating the machine.

TO THE DEALERS

This manual was developed to provide the best possible information, technical support and service to the customer. Review the Table of Contents and basic layout to become familiar with locations of pertinent information such as maintenance table, specifications and etc.

REPLACEMENT PARTS

To receive efficient service, always remember to give the dealer the following information:

- Correct part description or part number.
- Model number of your machine.
- Serial number of your machine.

UNITS OF MEASUREMENT

Measurements are given in metric units followed by the equivalent in US units. Hardware sizes are given in millimeters for metric hardware and inches for U.S. hardware.

TABLE OF CONTENTS

A Table of Contents is in the front of this manual. The Table of Contents shows the divisions. The individual divisions also have a Table of Contents.

PAGE NUMBERS

All page numbers are made of two numbers separated by a dash, such as 01-25. The number before the dash is the division number. The number following the dash is the page number in that division. Page numbers will be at the lower right or left of each page.

SAFETY PRECAUTIONS

SAFETY PRECAUTIONS

- Make sure that all persons are in a safe position before starting the engine, or operating ANY of the controls.
- Always stop the engine before leaving the operator's platform.
- Wait for all moving parts to stop COMPLETELY before starting any work on the tractor.
- Before starting service procedures, attached equipment should be resting on the ground and all hydraulic control levers operated back and forth several times with engine stopped.
- If it becomes necessary to go under raised attachment (i.e.: to perform adjustments, etc.), safety stands must be used to support the attachment.
- Make sure the battery ground cable is disconnected before working on or near the electrical system of electrical system components.
- Keep hands, feet and clothing a safe distance away from moving belts, pulleys and other moving parts. Make sure all safety shields are installed.
- Be extra careful when performing any checks, inspections, adjustments or tests that require operating the engine, the hydraulic controls, OR with the machine in motion.
- Make sure dependable jacks of adequate lifting capacity AND suitable stands (or wooden blocking) are used to securely block up the machine when removing any of the wheels or axles.
- Before any attempt is made to disconnect or remove any hydraulic component, make sure the hydraulic pressure within the system is relieved and the engine is stopped.
- Carry out the repair procedures in a "common sense" manner. Safety procedures cannot be overemphasized when working on, or around machinery, especially when working on engine driven and /or hydraulically actuated equipment.
- Safety also depends upon the skill of the serviceman in the use of tools and other shop equipment while performing the recommended service procedures.
- Exercise extreme caution when testing hydraulic or fuel system components as fluid ejected under high pressure can easily penetrate skin causing serious infection.
- When it is necessary to remove hoods, shields, ROPS, etc. to conduct repair operation, all items must be reinstalled to unit and secured in original fashion.
- Do not bend, drill holes, or weld on the ROPS structure, if the ROPS is damaged in any way it must be replaced.
- Personal injury may result if these precautions are not followed.
- Look for this symbol to point out important safety precautions. It means: ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

TRACTOR IDENTIFICATION

TRACTOR IDENTIFICATION

Model / Serial Numbers

Each tractor is identified by means of Tractor model and serial numbers. As a further identification, engine and chassis are provided with identification numbers.

To assist the parts department in ordering parts, list the tractor model and serial numbers on the parts order form.

Tractor Identification

FIGS. 1–4: Tractor identification plate (1) located below operator's seat on left-hand side of vertical floor panel. Contains model number, machine series number and weight in addition to Tractor serial number.

Tractor Model	M.S.N.

Tractor Serial Number

Engine Model Number

Engine Serial Number

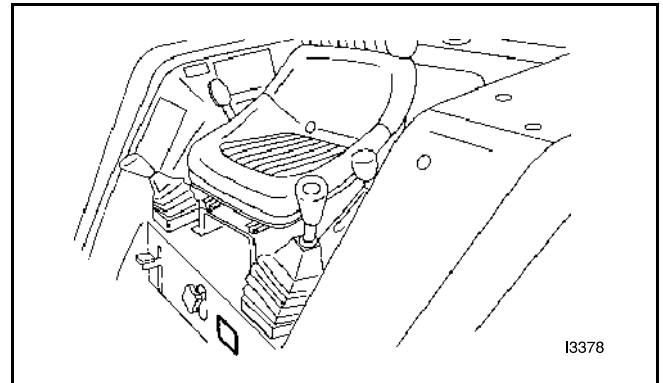


FIG. 1

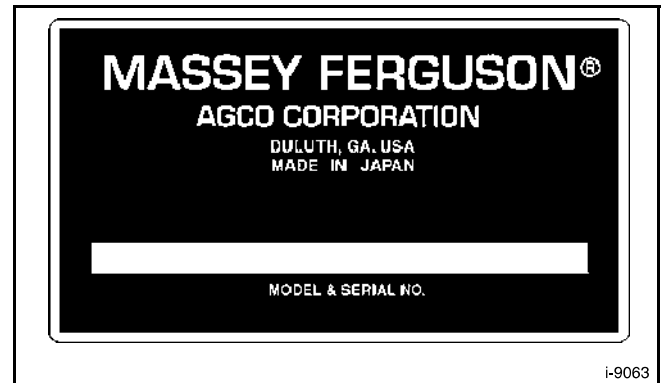


FIG. 2



FIG. 3



FIG. 4

FIG. 5: Engine model number (1) is cast on left side of engine block, below the injection pump.

Engine serial number (2) is stamped into cylinder block, above engine model number.

Chassis Number

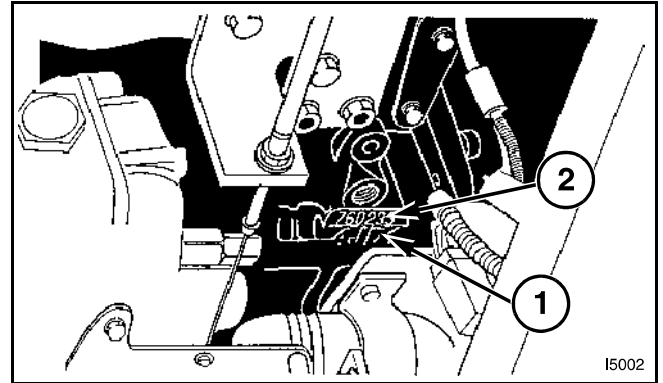


FIG. 5

FIG. 6: Chassis number (1) is stamped in right side of front frame.

NOTE: Reference to left-hand and right hand, uses throughout this book, refers to the position when seated in operator's seat and facing forwards.

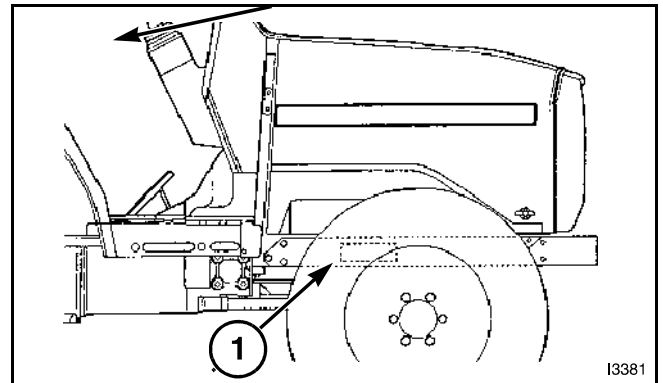


FIG. 6